

SUMMARY OF INTERVIEW WITH EXAMINER MONDT ON APRIL 21, 2006

Reasons Presented in the Interview of April 21, 2006 Warranting Favorable Action
Under 37 CFR 133(b)

Support for claims 2 and 40 in the specification was outlined for the Examiner. Amended claims 1, 33 and 39 were presented. Claims 1 and 39 were amended to add two cladding layers wherein the active layer and the at least one waveguide layer are located between the cladding layers. Claim 33 has been amended to avoid the language objected to by the Examiner and to add new language supported in the specification.

The reasons for favorable action presented were that Erchak failed to teach or suggest the above limitations of claims 1 and 39. Use of waveguide structure formed by the active layer, waveguide layer and the two cladding layers in LED goes against conventional LED thinking. Use of such waveguide structure together with photonic crystal structure enhances light extraction, since the waveguide structure will limit the possible optical modes that correspond to the band edge of the photonic crystal structure. The BRR structure of Erchak only reflects incident light in the normal or near-normal direction, and does not form a waveguide. Light that is incident on the DBR structure in Erchak at angles away from the normal incident is not reflected but passes through it. DBR layer in Erchak is thus not a waveguide.